

By this response and amendment claims 13 and 14 are amended to overcome the rejections made under 35 U.S.C. §112 and to more clearly define the invention. The specification and drawings have been amended to correct minor informalities. None of the aforementioned amendments introduces any new matter.

There was an objection to the specification. It is stated in the Office Action that there are minor informalities in the specification. The specification has been reviewed and amended to correct the minor informalities and FIG. 32 has been amended to correspond to the specification. Therefore, withdrawal of the objection to the specification is respectfully requested.

Claims 13-19 were rejected under 35 U.S.C. §112, second paragraph. Reconsideration and withdrawal of the rejections are respectfully requested since the claims have been amended to overcome the rejections.

Claims 13-19 were rejected under 35 U.S.C. §103 as being unpatentable over Read (EFTPOS: Electronic funds transfer at point of sale, and Howelectrics Electronics and Communications Engineering Journal, November/December 1989) in view of Harrop (New electronics for payment: IEE REVIEW OCTOBER 1989, pp 339-342) and Schuler et al. (WO 90/15382).

The present invention as recited in claim 13 includes an electronic purse system having a double-structured purse. The purse system includes an IC card, and a first terminal group which can transfer money to the IC card. Each terminal in the first terminal group includes a first ciphering/deciphering unit which performs ciphering/deciphering of information relating to money utilizing a code number. A

second terminal group can transfer money to the IC card. Each terminal in the second terminal group does not perform ciphering/deciphering of the information relating to money. The IC card includes a first purse, a second purse, a second ciphering/deciphering unit for ciphering/deciphering of the information relating to money obtained from one of the terminals in the first terminal group utilizing the code number, and an access control program. The access control program includes a first purse access program to access the first purse using the second ciphering/deciphering unit during a communication for a transaction with the first terminal group, a second purse access program to access the second purse without the ciphering and/or deciphering, and a selection program which selects one of the first and second purse access programs according to information received at the time said IC card is coupled to one of the first and second terminal groups, so that the terminals of the second terminal group cannot access the first purse access program and the terminals of the first terminal group can access both the first and second purse access programs. A transferring unit is provided that transfers an amount of money requested from outside from the first purse to the second purse as electronic money. When making a payment from the first purse, the information relating to the money is transferred between the first purse of the IC card and the one terminal of the first terminal group after ciphering of the information in the first and second ciphering/deciphering units. When making a payment from the second purse, the information relating to the money is transferred between the second purse of the IC card and the terminals of the second terminal group without ciphering of the information.

The present invention as recited in claim 14 includes an IC card applicable to an electronic purse system having a double-structured purse. The card includes a first purse for storing a first amount of money therein and a second purse for storing a second amount of money therein. A first ciphering/deciphering unit ciphers/deciphers information relating to money obtained from a first terminal group having a second ciphering/deciphering unit and utilizing a code number. An access control program includes a first purse access program to access the first purse using the first ciphering/deciphering unit during a communication for a transaction with the first terminal group. A second purse access program accesses the second purse without the ciphering and/or deciphering, and a selection program selects one of the first and second purse access programs according to information received at the time the IC card is coupled to one of the first and a second terminal groups, so that terminals of the second terminal group cannot access the first purse access program and terminals of the first terminal group can access both the first and second purse access programs. A transferring unit is provided for transferring an amount of money requested from outside from the first purse to the second purse as electronic money. When making a payment from the first purse, information relating to the money is transferred between the first purse and the first terminal group after ciphering of the information in the first and second ciphering/deciphering units. When making a payment from the second purse, information relating to the money is transferred between the second purse and the second terminal group without ciphering of the information.

An advantage of the present invention is that a transferring unit is provided for transferring an amount of money requested from outside from the first purse to the second purse as electronic money. Since the first purse requires ciphering and deciphering and the second purse does not, access to the second purse is easier. Thus by providing a transferring unit for transferring an amount of money requested from outside from the first purse to the second purse as electronic money, a person could access money from the second purse easily. This may be helpful in the situation when you are lending someone such as a child the card and only want the child to have limited access to a certain amount of money. In this case, money can be transferred from the first purse to the second purse from the outside providing more flexibility in the usage of the invention.

Read discloses an electronic funds transfer at point of sale card having three levels of memory, a first secret memory, a second confidential memory and a third free memory (see page 267, left column of Read). The first secret memory is within the card and unalterable. The first secret memory is used to store the operating system, application program and other programs that are necessary to perform a transaction. The second confidential memory is unalterable and can be authorized to be read externally. The second confidential memory is used to store information such as manufacturing number, name of manufacturer, identification number, PIN number which can be read (by certain people such as the management or maintenance engineers) but can not be updated. The third free memory may be read from and written into under control of an application program.

Harrop discloses a telephone that uses chip memory cards. When a chip memory card is placed in the telephone the amount of money on the card is instantly available for use.

Schuler discloses a microcomputer debit card having two accounts. A first protected account has restricted access and a second account has less restricted access.

Read, Harrop and Schuler taken either alone or in combination fail to disclose, teach or suggest the limitation of a transferring unit for transferring an amount of money requested from outside from said first purse to said second purse as electronic money as recited in independent claims 13 and 14 providing the advantage of greater flexibility in the usage of the card. This may be helpful in the situation when you are lending someone such as a child the card and only want the child to have limited access to a certain amount of money. In this case, money can be transferred from the first purse to the second purse from the outside. The child will only have access to the second purse and therefore you can control the amount of money the child has access to. The combination of Read, Harrop and Schuler at best disclose accessing a first or second account on a point of sale account. Read, Harrop and Schuler fail to disclose a transferring unit for transferring an amount of money requested from outside from said first purse to said second purse as electronic money as recited in independent claims 13 and 14.

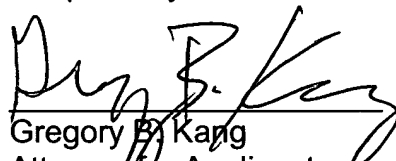
With respect to claims 15-19, these claims are ultimately dependent on claim 14. It is therefore submitted that these claims are patentable over the cited references for at least the same reasons discussed above with respect to claim 14.

In light of the foregoing, withdrawal of the rejection of claims 13-19 as being unpatentable over Read in view of Harrop and Schuler is respectfully requested.

It is respectfully submitted that the application is now in condition for allowance. If it is believed that the application is not in condition for allowance, the Examiner is respectfully requested to contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.

In the event this paper is not timely filed, applicants petition for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 01-2300.

Respectfully submitted,


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MARKED-UP COPY OF PARAGRAPHS IN SPECIFICATION

Page 57, last paragraph:

The ordinary transaction telephone displays, when having received the amount for payment from the IC card 1 as a payable amount (step T213), the received amount for payment on the display [402] 502 so that the user can check (step T214). Then, a standby state is effected for waiting for validation by means of an operation with an Enter key provided in the equipment 503 for controlling services for telephone unit/message units (step T215). When the user operates the Enter key, the operation for the validation is accepted (step T215), acknowledgement is sent to the IC card 1 (step T216), and further reception code indicating completion of receiving the amount to be paid is sent thereto (step 217).

MARKED-UP COPY OF CLAIMS

13. (Twice Amended) An electronic purse system having a double-structured purse comprising:

an IC card;

a first terminal group which can transfer money to [the] said IC card, wherein each terminal in [the] said first terminal group includes a first ciphering/deciphering unit which performs ciphering/deciphering of information relating to money utilizing a code number;

a second terminal group which can transfer money to [the] said IC card, wherein each terminal in [the] said second terminal group does not perform ciphering/deciphering of the information [related] relating to money; and

[the] said IC card, including

a) a first purse,
b) a second purse,
c) a second ciphering/deciphering unit for ciphering/deciphering of the information [related] relating to money obtained from one of the terminals in [the] said first terminal group utilizing the code number, and

d) an access control program including:

a first purse access program to access said first purse using [a] said second ciphering/deciphering unit during [the] a communication [during] for a transaction with said first terminal group,

a second purse access program to access said second purse without [said] the ciphering and/or deciphering, and

[selecting steps] a selection program which selects one of said first and second purse access programs according to [a received] information received at the time said IC card is coupled to [said] one of said first and second terminal groups [the terminals], so that said [terminal] terminals of said second terminal group cannot access said first purse access program and said [terminal] terminals of said first terminal group can access both said first and second purse access programs,

a transferring unit for transferring an amount of money requested from outside from said first purse to said second purse as electronic money.

wherein, when making a payment from [the] said first purse, the information relating to the money is transferred between [the] said first purse of said IC card and [the] said one terminal of [the] said first terminal group after ciphering of the information in the first and second ciphering/deciphering units [in the IC card and in the terminal of the first terminal group], and

wherein, when making a payment from the second purse, the information [related] relating to the money is transferred between [the] said second purse of said IC card and [one of the] said terminals of [the] said second terminal group without ciphering of the information.

14. (Twice Amended) An IC card applicable to an electronic purse system having a double-structured purse comprising:

a first purse for storing a first amount of money therein;

a second purse for storing a second amount of money therein;

a first ciphering/deciphering [means] unit for ciphering/deciphering of information relating to money obtained from a first terminal group having a second ciphering/deciphering unit and utilizing a code number, and

an access control program including:

a first purse access program to access said first purse using [a second ciphering] said first ciphering/deciphering unit during [the] a communication [during] for a transaction with said first terminal group,

a second purse access program to access said second purse without [said] the ciphering and/or deciphering, and

a [selecting steps] selection program which selects one of said first and second purse access programs according to [a received] information received at the time said IC card is coupled to [said] one of [the] said first and a second [terminals] terminal groups, so that [said terminal] terminals of said second terminal group cannot access said first purse access program and [said terminal] terminals of said first terminal group can access both said first and second purse access programs,

a transferring unit for transferring an amount of money requested from outside from said first purse to said second purse as electronic money,

wherein, when making a payment from [the] said first purse, information relating to the money is transferred between [the] said first purse and [the] said first terminal

group after ciphering of the information in [the] said first and second ciphering/deciphering units [in the IC card and in the first terminal], and

wherein, when making a payment from [the] said second purse, information relating to the money is transferred between [the] said second purse and [a] said second terminal group without ciphering of the information.